

UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF NEW JERSEY

HOWMEDICA OSTEONICS CORP. and  
STRYKER IRELAND LTD.,  
Plaintiffs,

v.

DEPUY ORTHOPAEDICS, INC.,  
Defendants.

HOWMEDICA OSTEONICS CORP. and  
STRYKER IRELAND LTD.,  
Plaintiffs,

v.

WRIGHT MEDICAL TECHNOLOGY,  
INC.,  
Defendant.

HOWMEDICA OSTEONICS CORP. and  
STRYKER IRELAND LTD.,  
Plaintiffs,

v.

SMITH & NEPHEW, INC.,  
Defendant.

HOWMEDICA OSTEONICS CORP. and  
STRYKER IRELAND LTD.,  
Plaintiffs,

v.

ZIMMER, INC.,  
Defendant.

Civil Action No. 11-CV-6498  
11-CV-6499  
11-CV-6500  
11-CV-6511

(SDW) (MCA)

**OPINION (Markman Hearing)**

July 9, 2013

**WIGENTON**, District Judge.

Before the Court are the briefs and supporting materials of Plaintiffs Howmedica Osteonics Corporation (“Howmedica”) and Stryker Ireland Limited (“Stryker”) (collectively “Plaintiffs”) and Defendants DePuy Orthopaedics, Incorporated and DePuy Products, Incorporated (“DePuy”); Wright Medical Technology, Incorporated (“Wright”); Smith & Nephew, Incorporated (“S&N”); and Zimmer, Incorporated (“Zimmer”) (collectively “Defendants”) regarding the request for a patent claim construction pursuant to Local Patent Rule 4.5(a).

This Court has jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a). Venue is proper under 28 U.S.C. §§ 1391(b) and 1400(b). This Court held a Markman hearing on May 2, 2013 and May 9, 2013 regarding patent claims in Plaintiffs’ U.S. Patent No. 6,475,243 (“the ’243 Patent”) and Defendants’ U.S. Patent No. 6,610,097 (“the ’097 Patent”).<sup>1</sup> After carefully considering the parties’ written and oral arguments regarding nine claims in dispute as to the ’243 Patent and fourteen claims in dispute as to the ’097 Patent, this Court has construed several claim terms, as discussed below.

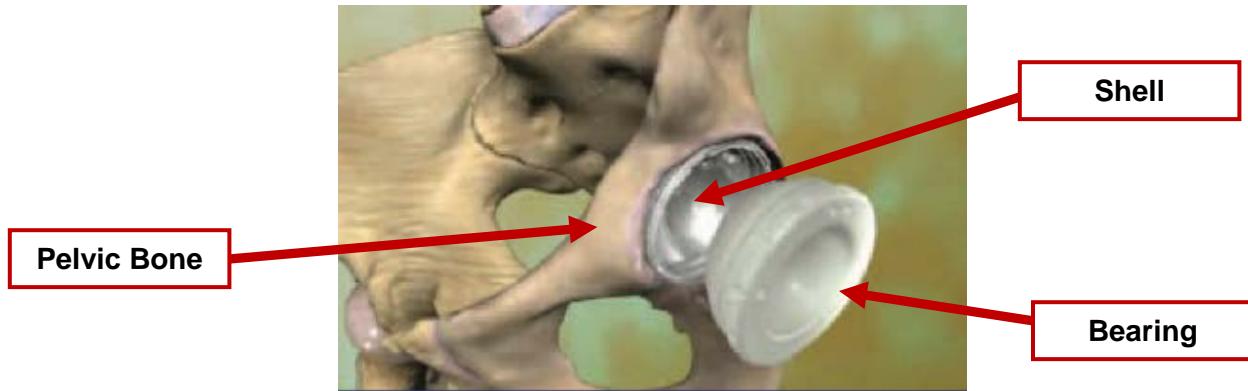
## **FACTUAL AND PROCEDURAL BACKGROUND<sup>2</sup>**

This matter relates to two patents involving surgical implants used in hip replacement procedures—the ’243 and ’097 Patents. In the simplest terms, hip replacement surgery involves removing a diseased hip joint and replacing it with an artificial joint, called a prosthesis. There are two components of a hip prosthesis—the acetabulum (socket) and the femoral head (ball). The acetabular component consists of a shell designed to fit the acetabulum and a bearing (or insert) designed to secure into the shell, as illustrated below.

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<sup>1</sup> Four individual cases relating to this matter—11-cv-6498, 11-cv-6499, 11-cv-6500, and 11-cv-6511—were consolidated *sua sponte* under the lead case—11-cv-6498—on May 9, 2013.

<sup>2</sup> Unless otherwise noted, the facts are taken from the parties’ submissions.



The '243 Patent addresses acetabular cup technologies featuring a dual-locking mechanism and the capability to accommodate different types of bearings (*i.e.* a soft polyethylene bearing and a hard ceramic or metal bearing). On May 22, 1998, the original parent application of the '243 Patent was filed. On November 5, 2002, the United States Patent and Trademark Office ("PTO") issued the '243 Patent. On December 7, 2010, the PTO issued an *Ex Parte* Reexamination Certificate confirming the validity of the '243 Patent. Howmedica owns the '243 Patent and Plaintiffs are joint assignees of this patent.

The '097 Patent addresses prosthetic cup assembly which includes components possessing a self-locking taper and associated method. The '097 Patent's parent application was filed on March 15, 2000. On September 25, 2001, the PTO issued a restriction requirement directing DePuy to choose between different sets of claims. DePuy chose to proceed with claims covering two-piece assemblies and not three-piece systems. The amended patent application dated June 24, 2002 reflects DePuy's intent to claim two-piece systems. The '097 Patent was issued in 2003. DePuy is the owner and assignee of the '097 Patent.

On November 4, 2011, Plaintiffs filed a Complaint alleging patent infringement and indirect patent infringement of the '243 Patent. On February 13, 2012, Defendants filed counterclaims seeking declaratory judgment of non-infringement as to the '243 Patent,

declaratory judgment of invalidity as to the '243 Patent, and declaratory judgment of rights as to the '243 Patent. DePuy filed a counterclaim seeking patent infringement of the '097 Patent and indirect infringement of the '097 Patent. On November 19, 2012, the parties filed a Joint Claim Construction and Prehearing Statement for the '243 Patent and the '097 Patent. A Markman hearing was held before this Court on May 5, 2013 and May 9, 2013.

## **LEGAL STANDARD**

### *Markman Hearing and Claim Construction*

Patent claim construction is a matter of law for the court. Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed. Cir. 1995). During interpretation of a claim, courts should initially look to intrinsic evidence, namely “the patent claims, the specification and the prosecution history if in evidence.” Bristol-Myers Squibb Co. v. Immunex, 86 F. Supp. 2d 447, 448 (D.N.J. 2000). “[I]ntrinsic evidence is the most significant source of the legally operative meaning of disputed claim language.” Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996). “The court should presume that the terms in the claim mean what they say, and, unless otherwise compelled, give full effect to the ordinary and accustomed meaning of claim terms.” Bristol-Myers Squibb Co., 86 F. Supp. 2d at 448. A person of ordinary skill in the art “is deemed to read the claim term . . . in the context of the entire patent.” Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed. Cir. 2005); see Medrad, Inc. v. MRI Devices Corp., 401 F.3d 1313, 1319 (Fed. Cir. 2005) (“We cannot look at the ordinary meaning of the term . . . in a vacuum. Rather, we must look at the ordinary meaning in the context of the written description and the prosecution history.”) (citation omitted); see also Markman, 52 F.3d at 979.

If the intrinsic evidence alone will not resolve the ambiguity, the court may rely on extrinsic evidence, which includes expert testimony, treatises, dictionaries and articles. Bristol-

Myers Squibb Co., 86 F. Supp. 2d at 448-49. Extrinsic evidence may not be used to vary or contradict the meaning established by the intrinsic evidence. Phillips, 415 F.3d at 1318-19, 1324. “The construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be . . . the correct construction.” Id. at 1316.

A key aspect of claim construction is to assist the jury in understanding complicated language and concepts. See Encap LLC v. Oldcastle Retail, Inc., No. 11-cv-808, 2012 WL 2339095, at \*9 (E.D. Wis. June 19, 2012) (“Claim construction is not intended to allow for needless substitution of more complicated language for terms easily understood by a lay jury.”); see also C.R. Bard, Inc. v. United States Surgical Corp., 388 F.3d 858, 863 (Fed. Cir. 2004) (“[M]erely rephrasing or paraphrasing the plain language of a claim by substituting synonyms does not represent genuine claim construction.”); AFG Indus., Inc. v. Cardinal IG Co., Inc., 239 F.3d 1239, 1247 (Fed. Cir. 2001) (“It is critical for trial courts to set forth an express construction of the material claim terms in dispute, in part because the claim construction becomes the basis of the jury instructions, should the case go to trial. It is also the necessary foundation of meaningful appellate review.”) (internal citation omitted); High Point SARL v. Sprint Nextel Corp., No. 09-cv-02269, 2011 U.S. Dist. LEXIS 155932, at \*35 (D. Kan. Jan. 24, 2011) (“A court may . . . refuse to construe a commonly understood term if the proposed construction would create ambiguity or confuse the jury.”).

## **DISCUSSION**

The parties dispute the meanings of twenty-three claim terms or phrases with respect to the ’243 Patent and the ’097 Patent. The disputed terms in the ’243 Patent are (1) intraoperatively; (2) system; (3) kit; (4) assembly; (5) selection of the internal bearing member; (6) juxtaposed with/location of the recess relative to the taper; (7) selectable for effective

selective securement; (8) the bearing member; and (9) language relating to securement tapers. The disputed terms in the '097 Patent, in essence, are: (1) between and cavity;<sup>3</sup> (2) configured with and (ii); (3) engage and connection;<sup>4</sup> (4) inner surface; (5) anti-rotation recesses and anti-rotation protrusions;<sup>5</sup> (6) upper bearing rim; and (7) bearing.

## **The '243 Patent**

### **a. “intraoperatively”**

Plaintiffs and Defendants disagree on the meaning of “intraoperatively” as used in claims 41 and 53 which explain that a bearing can be secured within a shell intraoperatively.<sup>6</sup> For instance, claim 41 recites, in pertinent part, “whereby the first and the second of the internal bearing members each is selectable for effective selective axial securement within the cavity of the shell member to complete the acetabular cup assembly intraoperatively.” U.S. Patent No. '243, Re-exam., Cl. 41 (issued Dec. 7, 2010).

Plaintiffs define “intraoperatively” as “during an operation.” (Plaintiff’s Opening Markman Brief (“Pls. Op. Br.”) at 9.) Defendants argue that “intraoperatively” means “in an operating room during surgery.” (Defendant’s Opening Markman Brief (“Defs. Op. Br.”) at 10.) Both parties’ proposed constructions capture the principle that “intraoperatively” means “during an operation” or “during surgery.” The real dispute pertains to whether “intraoperatively” requires that the surgery or operation occur in the operating room. Defendants include the limitation that the surgery occur “in the operating room” while Plaintiffs do not. (Defs. Op. Br. 10-11; Pls. Op. Br. 9-10.) In support of their argument, Defendants contend that “during prosecution [Plaintiffs] clearly and repeatedly emphasized that the intraoperative

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<sup>3</sup> The disputed language including “between” and “cavity” relate to six different claim terms.

<sup>4</sup> The disputed language including “engage” and “connection” relate to two different claim terms.

<sup>5</sup> The disputed language in connection with “anti-rotation recesses” and “anti-rotation protrusions” relate to two different claim terms.

<sup>6</sup> The parties agree that “intraoperative” and “interoperative” have the same meaning in the '243 Patent. (Markman Hrg. Tr. at 22-23 (May 2, 2013).)

selection and assembly of the acetabular cup occurs ‘in the operating room.’” (Defendants’ Joint Responsive Markman Brief (“Defs. Resp. Br.”) at 9 (citing to Dkt. No. 74, Ex. 2 at STRTRID00006676-78, Ex. 3 at STRTRID00006997-7016, Ex. 4 at STRTRID00007340; Dkt. No. 73 at 11-13).) Defendants further argue that Plaintiffs concede in their opening brief that “an operating room is undoubtedly where most operations occur.” (Defs. Resp. Br. 10 (citing to Dkt. No. 76 at 9).)

During interpretation of a patent claim, courts should initially look to intrinsic evidence. Bristol-Myers Squibb Co., 86 F. Supp. 2d at 448. “The court should presume that the terms in the claim mean what they say, and, unless otherwise compelled, give full effect to the ordinary and accustomed meaning of claim terms.” Id. Nothing in the patent or prosecution history indicates that the term “intraoperatively” requires that an operation take place specifically in an operating room. See U.S. Patent No. ’243 (issued Nov. 5, 2002). Defendants point to the language that “valuable time in the operation room is thus saved” in reference to “intraoperatively.” (Defs. Op. Br. 12 (citing STRTRID00007340).) However, the focus of this language is that time is saved because surgeons can choose which bearing member is appropriate during the surgery. (Plaintiffs ’243 Patent Markman Powerpoint Presentation (“Pls. ’243 Markman PP”) at 18; Pls. Op. Br. 10.) This does not serve to modify “intraoperatively” such that it requires that the procedure take place in an operating room. Furthermore, many places can serve as “an operating room” while not technically being an operating room, such as an office.

Based on the intrinsic evidence, in construing “intraoperatively,” this Court finds that it is not necessary to include a locale limitation. A combination of the parties’ proposed constructions is appropriate here. Accordingly, this Court concludes that “intraoperatively” means “during a surgical procedure.”

**b. “system”; “kit”; “assembly”**

The next three terms—system, kit, and assembly—will be discussed consecutively because their definitions are hierachal in nature and directly affect one another. The parties agree that these terms should have different meanings as both Plaintiffs and Defendants propose different constructions for “system,” “kit” and “assembly.” See Nystrom v. TREX Co., Inc., 424 F.3d 1136, 1143 (Fed. Cir. 2005) (“When different words or phrases are used in separate claims, a difference in meaning is presumed.”). Additionally, both parties acknowledge the following hierarchy: (1) “system” is broader than “kit” or an “assembly”; (2) a “kit” is narrower than “system” but broader than an “assembly”; and (3) an “assembly” is narrower than a “kit” or a “system.” (Defs. Resp. Br. 18; Pls. Op. Br. 11-17; Markman Hrg. Tr. at 36-37 (May 2, 2013).)

**“system”**

Plaintiffs and Defendants disagree on the construction of “system” as used in claim 41. Plaintiffs contend that “system” means “a group of related parts.” (Pls. Op. Br. 13.) Defendants define a “system” as “a set of related component parts.” (Defs. Resp. Br. 18.) On its face, the key difference between the parties’ proposed constructions is that Defendants include the word “component” as part of their definition of “system” whereas Plaintiffs do not. (Id.)

Plaintiffs contend that inclusion of the word “component” in the definition of “system” is potentially confusing because “the required parts of the system can include a plurality of different bearings . . . [b]ut these bearings do not work together and are not components of one another.” (Pls. Op. Br. 14.) Further, Plaintiffs argue that “[t]o the extent ‘component’ is meant to convey that the shell and bearing are indeed parts of the system, such verbiage is redundant and unnecessary.” (Id. at 15.) Defendants, however, acknowledge that they “have not assigned any special or misleading meaning to the word ‘components.’” (Defs. Resp. Br. 17.) Indeed,

Defendants' argument supports Plaintiffs' construction that “[a] ‘system’ is a group of related parts.” (Defs. Op. Br. 19.) Furthermore, Defendants assert that “the primary dispute relates to the differences between ‘system,’ ‘kit,’ and ‘assembly.’” (Defs. Resp. Br. 17.)

As previously discussed, in interpreting a patent claim, courts should initially look to intrinsic evidence. Bristol-Myers Squibb Co., 86 F. Supp. 2d at 448. In this instance, the term “system” appears only in the preamble of the claim. U.S. Patent No. ’243, Re-exam., Cl. 41 (issued Dec. 7, 2010). The specification does not provide any insight into the meaning of the term “system.”<sup>7</sup> (See Id.) Additionally, the parties appear to agree that “system” should be defined as either a group or set of related parts. Accordingly, this Court finds that “system” is “a set of related parts.”

#### **“kit”**

Plaintiffs and Defendants disagree on the construction of “kit of component parts” as it appears in claim 27. Plaintiffs’ proposed construction of “kit” is “a set of parts from which a subset can be selected to create an assembly.” (Pls. Op. Br. 16.) Defendants’ proposed construction of “kit” is “a set of claimed component parts packaged together.” (Defs. Op. Br. 16.) The parties do not dispute that “[a] kit includes various parts, such as a shell and bearings made of different materials.” (Defs. Resp. Br. 16.) The parties’ main dispute is that Defendants define “kit” as parts that are “packaged together” whereas Plaintiffs essentially refer to “kit” as a “subset” of related parts.

As previously discussed, in interpreting a patent claim, courts should initially look to intrinsic evidence. Bristol-Myers Squibb Co., 86 F. Supp. 2d at 448. In support of their proposed construction, Plaintiffs point to claim 27’s preamble language which teaches that “[t]he

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<sup>7</sup> The term “system” was added during re-examination of the patent and did not originally appear in the ’243 Patent. (See U.S. Patent No. ’243, Reexam., Cl. 41-48 (issued Dec. 7, 2010); see Defs. Resp. Br. 18. (citing to Dkt. No. 74, Ex. 4 at STRTRID00007318).)

kit . . . includes parts that can be used to assemble a bearing and a shell assembly.” (Pls. Op. Br. 16.) Plaintiffs note that the ’243 Patent specification does not reference the word “packaged” or any analogous language. (See id. at 17.)

Defendants contend that their proposed construction of “kit” aligns with the plain and ordinary meaning of the word along with how it is used throughout the ’243 Patent. (See Defs. Op. Br. 16.) Defendants argue that Plaintiffs’ proposed construction ignores the specification which teaches that “key aspects of a ‘kit’ . . . [include that] the components are ‘made available,’ ‘provided,’ or ‘furnished’ to the user.” (Id. at 17 (citing U.S. Patent No. ’243 at col.5:6-22, col.7:65-8:1, col.9:19-21 (issued Nov. 5, 2002))). Defendants are also concerned about the differentiation between “kit” versus “system” and “assembly” and argue that their proposed construction effectively takes into account the necessary distinctions. (See Defs. Resp. Br. 17.)

Because the intrinsic evidence is ambiguous, it is proper for this Court to consult extrinsic evidence such as dictionary definitions. Bristol-Myers Squibb Co., 86 F. Supp. 2d at 448. Plaintiffs provide, for example, one definition of “kit” from Merriam-Webster’s Dictionary as “a set of parts to be assembled or worked up.” (Pls. Op. Br. 17 (citing App. D9).) Plaintiffs note that based on dictionary definitions, the inclusion of “packaging” is not required for a “kit.” (See id.) One of the definitions that Defendants point to is from Webster’s Third New International Dictionary (1993) which defines “kit” as “a collection of equipment and often supplies typically carried in a box or bag.” (Defs. Op. Br. 17 (citing Ex 29).)

Based on the intrinsic evidence, this Court finds that nothing in the patent language or prosecution history requires that the concept of parts being “packaged together” be included in the definition of “kit.” To the contrary, as both parties agree, the specification supports that a “kit” includes parts—such as a shell and various bearings—to create a bearing and shell

assembly. Additionally, the extrinsic evidence also demonstrates that parts need not be “packaged together” in order to establish a “kit.”

Accordingly, based on the intrinsic and extrinsic evidence, this Court finds that a “kit” is “a subset of related parts.” Defining “kit” in this way adequately construes it more narrowly than “system.”<sup>8</sup> Moreover, this construction would assist a lay jury in understanding the difference between a “kit” and a “system.” See Encap LLC, 2012 WL 2339095, at \*9 (“Claim construction is not intended to allow for needless substitution of more complicated language for terms easily understood by a lay jury.”).

### **“assembly”**

Plaintiffs and Defendants disagree on the construction of an “assembly” as it appears in claims 20, 27, 41 and 53. (Pls. Op. Br. 11; Defs. Op. Br. 13.) Plaintiffs’ proposed construction of “assembly” is “a collection of parts that can be fitted together as a unit.” Defendants’ proposed construction of “assembly” is “a set of related component parts combined to form a completed structure.” (Defs. Op. Br. 13.) The heart of the parties’ dispute is whether an “assembly” refers to related parts that *can be combined*—as proposed by Plaintiffs—versus a set of related parts that *have already been combined*—as proposed by Defendants. (Id. at 14.)

First, this Court will look to the intrinsic evidence in construing the term “assembly.” See Bristol-Myers Squibb Co., 86 F. Supp. 2d at 448. Both parties argue that the intrinsic evidence supports their respective positions. Defendants point out that claim 27 relates to “[a] kit of component parts for assembling an acetabular cup assembly” and recites that “the one and the another of the internal bearing members each is selectable for effective selective securement within the shell member to complete the acetabular cup assembly[.]” (See Defs. Op. Br. 14; U.S.

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<sup>8</sup> Specifically, inclusion of the word “subset” in defining a “kit” makes it narrower than a system. For instance, a “system” is “a set of related parts,” while a “kit” is a “subset of related parts.”

Patent No. '243, Cl. 27 (issued Nov. 5, 2002) (emphasis added).) Claims 40 and 41 contain similar language.<sup>9</sup> Defendants note that the language of claim 53—a method claim—references the “completion of the acetabular cup assembly.”<sup>10</sup> (Defs. Op. Br. 14; U.S. Patent No. '243, Reexam., Cl. 53 (issued on Dec. 7, 2010).) Based on the claim language, Defendants contend that an “assembly” is the completed structure that results from securing a bearing member within the shell. (See Defs. Op. Br. 15.) Defendants also argue that the patent specification supports its proposed construction. (See id.) For instance, Defendants point to figures where the “assembly” is complete.” (See U.S. Patent No. '243, Fig.1 (issued Nov. 5, 2002); Id. (citing to U.S. Patent No. '243 at col.3:47-49 (issued Nov. 5, 2002)).) Lastly, Defendants contend that the prosecution history supports that an “assembly” is a completed structure. (See Defs. Op. Br. 15.) The relevant language in the prosecution history is as follows: “the present invention presents an acetabular shell and bearing system in which a surgeon is able to select any one of a plurality of available bearing members for assembly with a shell member and then assemble the selected bearing [member] with the shell member to establish an acetabular cup assembly in the operating room.” (Id. (citing Ex. 2 at STRTRID00006676 (emphasis added)))

On the other hand, Plaintiffs argue that claim 20’s preamble does not require that a shell and bearing be combined to create an “assembly.”<sup>11</sup> (Pls. Op. Br. 12.) Plaintiffs argue that an assembly exists when a bearing member is available “for selective securement” within a shell, as

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<sup>9</sup> U.S. Patent No. '243, Reexam., Cl. 40, 41 (issued Dec. 7, 2010).

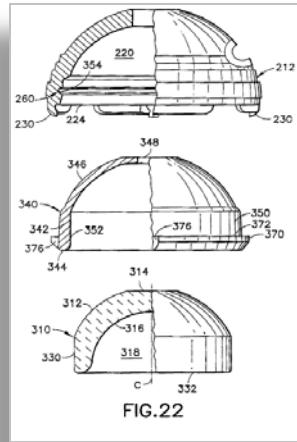
<sup>10</sup> Plaintiffs concede that in claim 53, the inventors expressly claimed that an “assembly” refers to an “actual securement of the parts.” (Plaintiffs Responsive Markman Brief (“Pls. Resp. Br.”) at 7.)

<sup>11</sup> The preamble of claim 20 states:

An assembly having a shell member and an internal bearing member for selective securement within the shell member interoperatively, the internal bearing member being selected from a plurality of bearing members having different characteristics, including different securement characteristics, such that the acetabular cup assembly selectively is provided with characteristics corresponding to the characteristics of the selected internal bearing member, the shell member comprising:

U.S. Patent No. '243, Cl. 20 (issued Nov. 5, 2002).

noted in the preamble language of claim 20. (*Id.*) Plaintiffs also contend that the specification supports their proposed construction. (*See id.*) Plaintiffs identify several figures in the specification—including figures 10, 13, 20, and 24—as examples of an “assembly” where the parts are not combined. (*Id.* (citing to U.S. Patent No. ’243, Fig. 10, 13, 20, 24. (issued Nov. 5. 2002).) Additionally, Plaintiffs refer to figure 22, as reproduced below:



U.S. Patent No. ’243, Fig. 22 (issued Nov. 5, 2002). This figure is “an exploded elevational view, partially sectioned, showing another embodiment including an assembly in which a bearing component is to be assembled with a securing component.” (U.S. Patent No. ’243 at col.4:32-35 (issued Nov. 5, 2002); Pls. ’243 Markman PP at 38 (emphasis added).) According to Plaintiffs, an “assembly” refers to related parts that are unassembled as well as assembled together. (Pls. Resp. Br. 6.) (noting that “[o]nce the pieces are combined, they *still* are considered ‘an assembly’”) (emphasis in original).

This Court finds that Plaintiffs’ argument that an “assembly” exists whether or not the parts are combined may be misleading or confusing to a jury. Specifically, it blurs the distinction between a “kit” and “assembly” as both terms can potentially include parts that can be fitted together as a unit. Furthermore, Plaintiffs’ contention that the words “for selective

securement” in the claim language modify the term “assembly” such that an “assembly” exists so long as a bearing member is available “*for* selective securement” is misguided. The terms “for selective securement” appear to describe the functionality of the bearing rather than the scope or nature of the assembly. Additionally, as Defendants point out, an “exploded” view—as shown in figure 22 above—is designed to illustrate the component parts of an assembly and how they fit together to form an assembly. (See, e.g., 37 C.F.R. 1.84(h)(1) (explaining that exploded views “show the relationship or order of assembly of various parts”); Defendants ’243 Patent Markman Powerpoint Presentation (“Defs. ’243 Markman PP”) at 127.) Lastly, Plaintiffs point to instances in the specification describing an acetabular cup “assembly assembled” to argue that the word “assembled” would be superfluous if an assembly consisted of combined parts. This argument is not persuasive. For example, it would not be improper to note that “a chair [that is] assembled” in referencing a complete, assembled chair. Similarly, noting an “assembly [that is] assembled” does not necessitate that an assembly be unsecured and uncombined parts.

Based on the intrinsic evidence, this Court concludes that an “assembly” does require that the shell and bearing be secured together. Because neither party’s construction fully captures the essence of an “assembly,” a combination of the parties’ proposed constructions is appropriate here. This Court finds that an “assembly” is “a collection of related parts that have been combined to form a completed unit.”

### **c. selection of the internal bearing member**

Plaintiffs and Defendants disagree on the construction of language relating to the selection of the internal bearing member as it appears in claims 20 and 27.<sup>12</sup> The disputed language is as follows:

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<sup>12</sup> The parties originally disputed the language in claim 53 as well. However, at the Markman hearing, defense counsel indicated that the parties agreed that claim 53 need not be construed. (Markman Hrg. Tr. at 78 (May 2,

(1) claim 20's description that "the internal bearing member being selected from a plurality of bearing members having different characteristics, including different securement characteristics, such that the acetabular cup assembly selectively is provided with the characteristics corresponding to the characteristics of the selected internal bearing member"; and

(2) claim 27's description that "a plurality of bearing members having different characteristics, including different securement characteristics, such that the acetabular cup assembly selectively is provided with the characteristics corresponding to the characteristics of a selected one of the internal bearing members."

(Pls. Op. Br. 18; Defs. Op. Br. 20.) Plaintiffs contend that this Court does not need to construe these terms. (Pls. Op. Br. 19.) Defendants propose the following construction with respect to the language relating to selection of a bearing member: "requires a surgeon to select one bearing member from a plurality of bearing members with different securement characteristics." (Defs. Op. Br. 20.) The center of the parties' dispute is whether the disputed language requires the "capability" for selection—as Plaintiffs argue—versus active selection of a particular bearing member—as Defendants argue.

This Court will look to the intrinsic evidence in construing the language relating to selection of the internal bearing member. See Bristol-Myers Squibb Co., 86 F. Supp. 2d at 448. In support of their proposed claim construction of the language relating to selection of a bearing member, Defendants rely on intrinsic evidence, namely the claim language. Defendants cite to the language of claim 20 which states that "the internal bearing member being selected from a plurality of bearing members having different characteristics, such that the acetabular cup assembly selectively is provided with the characteristics corresponding to the characteristics of the selected internal bearing member." (Defs. Op. Br. 20-21) (emphasis added). Defendants argue that this requires a surgeon to start with a plurality of different bearings and end up choosing a single bearing to be secured within the shell. (Id. at 21.) Defendants reason that if a

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2013); Defs. '243 Markman PP at 136-37.) Thus, for purposes of this Opinion, briefing and arguments relating to claim 53's language relating to selection of a bearing member will not be addressed.

surgeon only had one bearing available, claim 20 would not be infringed upon because the surgeon is not “selecting” from a plurality of bearing members. (Id.) Alternatively, Defendants contend that if a surgeon has a plurality of bearings but does not actually “select” one to be secured within the shell, there would be no infringement of claim 20. (Id.) Accordingly, Defendants contend that claim 20 requires active selection of a single bearing from a plurality of bearings. (Id.) Similarly, Defendants argue that the language of claim 27—“the acetabular cup assembly selectively is provided with the characteristics corresponding to the characteristics of a selected one of the internal bearing members”—requires active selection of an internal bearing member. (Id.)

Plaintiffs argue that no construction is necessary here because the claim language at issue is readily understandable by a person of ordinary skill in the art. (Pls. Op. Br. 19); Finjan, Inc. v. Secure Computing Corp., 626 F.3d 1197, 1207 (Fed. Cir. 2010) (indicating that the Court should give effect to the claim’s clear language and reject the proposed construction which would unjustifiably narrow the claim’s scope). The crux of Plaintiffs’ argument is that the claim language provides that a bearing is capable of being selected, but does not actually need to be selected. (Pls. ’243 Markman PP at 43-44.) In support of this argument, Plaintiffs point to specification language which recites that “any one of which bearing sockets then being capable of securement in place in the shell member interoperatively.” (Pls. ’243 Markman PP at 43 (citing U.S. Patent No. ’234 at col.5:11-21 (issued Nov. 5, 2002))). Plaintiffs also point to the prosecution history which states, in pertinent part, that “any one of a plurality of bearing members having different characteristics . . . can be selected for interoperative securement within a single shell member.” (Pls. ’243 Markman PP at 44 (citing Feb. 13, 2002 Amendment at STRTRID00007006).) Additionally, Plaintiffs argue that Defendants improperly seek to define

whole paragraphs rather than pointing to particular words or terms requiring construction. (Pls. Op. Br. 19.) Lastly, Plaintiffs argue that Defendants' proposed construction is overly narrow in requiring a surgeon to select a bearing. (*Id.* at 20.)

In light of the intrinsic evidence, this Court finds that the language relating to the selection of a bearing member does not require construction and should be given its plain and ordinary meaning as Plaintiffs suggest. The words in the claim themselves appropriately and adequately describe what is required for selection of the internal bearing member. Nothing in the claim terms is ambiguous. Nothing in the claim terms requires that this Court read into the disputed language "active selection" of a bearing member. Additionally, Defendants concede that the disputed claim language does not identify an actor (*i.e.* a surgeon) to make the selection of a bearing.<sup>13</sup> (Markman Hrg. Tr. at 78 (May 2, 2013); Defs. Resp. Br. 22.) Accordingly, there is no reason to construe the disputed language to include a surgeon.

**d. "juxtaposed with"/location of the recess relative to the taper**

The parties dispute the claim language relating to the location of the recess relative to the taper, including the words "juxtaposed with."<sup>14</sup> This language is used in claims 20, 27, 41, and 53 as follows:

1. claim 20: "the first and second securing structures being juxtaposed with one another and placed at relative locations such that the effectiveness of each of the first and second securing elements is maintained while in the presence of the other of the first and second securing elements";
2. claim 27: "the first and second securing elements being juxtaposed with one another and placed at relative locations such that the effectiveness of each of

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<sup>13</sup> This Court notes Defendants' argument that "the intrinsic record clearly and repeatedly identifies the surgeon as this actor." (Defs. Resp. Br. 22.) Nevertheless, the absence of the requirement of a "surgeon" in the plain claim terms indicates that no such restriction should be included in this Court's construction of the disputed claim language.

<sup>14</sup> The parties do not fully agree as to which language is in dispute. Plaintiffs contend that the terms "juxtaposed with" and "effectiveness" require claim construction while Defendants point to several phrases including "juxtaposed with one another," "placed at relative locations," "such that the effectiveness of each," and "is maintained while in the presence of the other." (Pls. Op. Br. 22; Defs. Op. Br. 24.)

the first and second securing elements is maintained while in the presence of the other of the first and second securing elements”;

3. claim 41: “the securement recess and the internal securement taper being juxtaposed with one another and placed at relative locations such that the effectiveness of each of the securement recess and the internal securement taper is maintained while in the presence of the other of the securement recess and the internal securement taper”; and
4. claim 53: “the securement recess and the internal securement taper are in juxtaposition with one another and placed at relative locations such that the effectiveness of each of the securement recess and the internal securement taper is maintained while in the presence of the other of the securement recess and the internal securement taper.”

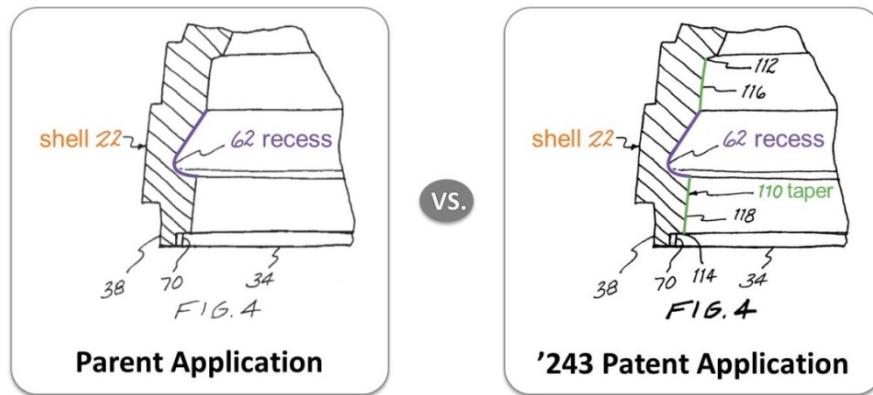
(U.S. Patent No. '243, Cl. 20, 27 (issued Nov. 5, 2002); U.S. Patent No. '243, Reexam., Cl. 41, 53 (issued Dec. 7, 2010).) Plaintiffs argue that the disputed language should be construed as “the first and second securing structures being positioned nearby one another and placed at relative locations such that the ability of each of the first and second securing elements to secure a bearing in the shell is maintained while in the presence of the other of the first and second securing elements.” (Pls. Op. Br. 21.) Defendants contend that the disputed language should be construed as “the recess is essentially midway along the taper such that the effectiveness of each is not compromised.” (Defs. Op. Br. 23.)

This Court will first look to the intrinsic evidence in construing the disputed claim language. See Bristol-Myers Squibb Co., 86 F. Supp. 2d at 448. Defendants point to all of the figures in the '243 Patent and argue that each figure displays the recess within and essentially midway along the taper. (Defs. Op. Br. 25.) Additionally, Defendants note that the patent specification includes the following language regarding the relationship of the two locking mechanisms (the taper and the recess):

Seating surface 110 includes an upper end 112 and a lower end 114 and is divided by the recess 62 into an upper segment 116 and a lower segment 118 (see FIG. 4). By placing the recess 62 essentially midway between the upper end 112 and the lower end 114, engagement of the seating surfaces 106 and 110 . . . is facilitated by virtue of the locking being accomplished along segments 116 and 118 having

generally the same, and therefore maximized, axial length. In this manner, the effectiveness of the seating surface 110 in assuring appropriate alignment between the sleeve 100 and the shell member 22 as the sleeve 100 is inserted into the shell member 22 and in subsequently attaining the desired locking engagement with seating surface 106 is not compromised by the presence of the recess 62.

(Defs. Op. Br. 26 (citing Ex. 3 at STRTRID00007171 (lines 12-25) (emphases added); Ex. 1 at 7:8-23).) Defendants note that this language relating specifically to the relationship between the claimed securing recess and taper was not included in the parent application. (*Id.* at 25 (citing Ex. 2 at STRTRID00006607-33).) Defendants also focus on Figure 4 of the '243 Patent—as depicted below—which was amended to demonstrate the similar length of the upper and lower segments of the taper. (*Id.* at 26 (comparing Ex. 2 at STRTRID00007146 with Ex. 2 at STRTRID00006636).)



According to Defendants, “[t]he importance of this disclosure regarding how the locations of the taper and the recess ensure the effectiveness of alignment and locking is underscored by [Plaintiffs] including the disputed language in the asserted independent claims of the '243 Patent at the same time these changes were made to the specification.” (Defs. Op. Br. 26-27 (citing Ex. 3 at STRTRID00007192 (Claim 20), STRTRID00007195 (Claim 27)).)

To the contrary, Plaintiffs argue that a person of ordinary skill in the art would interpret the disputed terms “juxtaposed with” or “in juxtaposition with” to mean that the first and second

securing elements are “positioned nearby” each other in the shell cavity. (Pls. Op. Br. 22.) Plaintiffs contend that the terms “placed at relative locations” supports the proposed construction that the securing elements are near each other and not specifically located midway along the taper. (Id. at 22-23.)

With respect to “effectiveness,” Plaintiffs contend that it should be construed as the “ability” of each of the securing mechanisms to perform their intended function of “securing the bearing in the shell.” (Pls. Op. Br. 23.) Other than referencing a dictionary definition, Plaintiffs do not further provide any explanation as to this aspect of their proposed construction.

In delving deeper into the parties’ proposed constructions, it is helpful to consider the several substantive arguments that the parties raise with respect to their adversaries’ constructions. Defendants argue that Plaintiffs’ proposed construction improperly focuses only on construing “juxtaposition” through use of dictionary definitions. (Defs. Op. Br. 29.) Furthermore, Defendants argue that Plaintiffs fail to provide clarification or boundaries of the claims. (Id.)

Plaintiffs argue that Defendants’ proposed construction renders several words in dispute meaningless. (Pls. Op. Br. 23.) Additionally, Plaintiffs rely on Phillips to argue that Defendants commit the “cardinal sin” of claim construction in attempting to read in a limitation from the preferred embodiment that is articulated in the specification. (Id. (citing Phillips, 415 F.3d at 1320); see, e.g., U.S. Patent No. ’243 at col.7:5-23 (issued Nov. 5, 2002).) Plaintiffs argue that the recess being placed midway along the taper is a preferred embodiment of the ’243 Patent and construing the disputed claim language with this restriction would be improper. (Pls. Op. Br. 24.)

Furthermore, Plaintiffs contend that Defendants’ proposed construction violates the

doctrine of claim differentiation. (Pls. Op. Br. 24 (citing AK Steel Corp. v. Sollac & Ugine, 344 F.3d 1234, 1242 (Fed. Cir. 2003)).) Claim differentiation is a rule of construction that “presumes that there is a difference in scope among the claims of a patent.” Multiform Desiccants, Inc. v. Medzam, Ltd., 133 F.3d 1473, 1479-80 (Fed. Cir. 1998). Under this doctrine, narrow claim limitations cannot be read into broader claims to escape infringement. See e.g., Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1054-55 (Fed. Cir. 1988) (citations omitted). Plaintiffs note that dependent claims 25 and 32 rely on independent claims 20 and 27, respectively. (Pls. Op. Br. 24.) According to Plaintiffs, Defendants’ construction improperly construes the dependent claims as having the same scope as the independent claims. (Id.)

As a preliminary matter, this Court finds that it is necessary to construe more than just the terms “juxtaposed with” or “in juxtaposition” in order to clarify the disputed claims for the jury. The disputed language in claims 20, 27, 41, and 53 imposes three requirements regarding the location of the securing elements. First, the first and second securing structures “are in juxtaposition/being juxtaposed” with one another. Second, the securing structures are “placed at relative locations such that the effectiveness of the securing elements is maintained.” Third, they must be “while in the presence of the other” securing elements of the bearing member. A construction of the disputed language should take into account all of these requirements.

Plaintiffs’ proposed construction of “juxtaposed/juxtaposition” as “positioned nearby” is broad and vague. Likewise, Plaintiffs’ proposed construction does not serve to clarify the disputed language. Instead, it provides a synonym to “juxtaposed/juxtaposition,” which is not helpful for purposes of claim construction. See C.R. Bard, 388 F.3d at 863. Importantly, Plaintiffs’ proposed construction does not address all of the components requiring construction in the disputed language. See Bicon, Inc. v. Straumann Co., 441 F.3d 945, 950 (Fed. Cir. 2006)

(noting that “claims are interpreted with an eye toward giving effect to all terms in the claim”). For instance, the jury should be equipped with a solid understanding of the positional relationship between the securing elements—the recess and the taper—through a construction of the disputed language.

Moreover, contrary to Plaintiffs’ arguments, it is not improper for this Court to construe “chunks of claims” for the purposes of claim construction. A court’s construction does not effectively “swap out” the disputed words in a claim. Rather, the purpose of claim construction is to provide the jury “with instructions adequate to ensure that the jury fully understands the court’s claim construction rulings and what the patentee covered by the claims.” Sulzer Textil A.G. v. Picanol N.V., 358 F.3d 1356, 1366 (Fed. Cir. 2004). Moreover, there is no precedent indicating that construction of terms of art within claims has to fit neatly within respective claims. Indeed, as long as construction of claim terms is consistent with use of the words by the inventor, such construction is proper. See Texas Digital Sys., Inc. v. Telegenix, Inc., 308 F.3d 1193, 1203 (Fed. Cir. 2002).

With respect to Plaintiffs’ “preferred embodiment” argument, Plaintiffs’ reliance on Phillips is misplaced. In Phillips, the Federal Circuit rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment. Phillips, 415 F.3d at 1323. In the instant matter, the only embodiment discussed in the context of the ’243 Patent is where the recess is placed “essentially midway” along the taper. Although Plaintiffs argue that the securement features can be placed in a host of “relative locations,” there is no support for this contention in the specification or other intrinsic evidence. For instance, as DePuy argued at the Markman hearing, “the specification does not disclose any alternative locations of the taper/recess that are ‘next to,’ ‘abutting,’ or

‘overlapping’ with each other.” (Defs. ’243 Markman PP at 44.) In essence, the patent teaches that the effectiveness of the securing elements is maintained when the recess is placed essentially midway along the taper.

Additionally, with respect to claim differentiation, as the Supreme Court has held, “[c]laim differentiation is a guide, not a rigid rule. If a claim will bear only one interpretation, similarity will have to be tolerated.” Autogiro Co. of America v. United States, 384 F.2d 391, 404 (1967); see also Seachange Int’l, Inc. v. C-COR Inc., 413 F.3d 1361, 1369 (Fed. Cir. 2005) (noting that claim differentiation is “not a hard and fast rule and will be overcome by a contrary construction dictated by the written description or prosecution history”). As previously articulated, the specification does not provide any additional configurations that would be effective in securing the elements in the presence of one another. Although there are dependent claims in this instance, the lack of any other configurations that would similarly maintain the effectiveness of the securing elements overcomes the doctrine of claim differentiation. See O.I. Corp. v. Tekmar Co., Inc., 115 F.3d 1576 (Fed. Cir. 1997) (“Although the doctrine of claim differentiation may at times be controlling, construction of claims is not based solely upon the language of other claims; the doctrine cannot alter a definition that is otherwise clear from the claim language, description, and prosecution history.”) (citing Hormone Research Found., Inc. v. Genentech, Inc., 904 F.2d 1558, 1576 n. 15 (Fed. Cir. 1990)); Retractable Techs., Inc. v. Becton, Dickinson and Co., 653 F.3d 1296, 1305 (Fed. Cir. 2011) (“[A]ny presumption created by the doctrine of claim differentiation ‘will be overcome by a contrary construction dictated by the written description or prosecution history.’”) (citing Seachange Int’l, Inc., 413 F.3d at 1369).

Based on the intrinsic evidence, this Court finds that the disputed language related to the location of the recess relative to the taper including “juxtaposed with” means “the recess is essentially midway along the taper such that the effectiveness of each is not compromised.”

**e. “bearing member”**

Plaintiffs and Defendants disagree on the construction of “bearing member” as it appears in claim 20. The terms “bearing member” appear in claim 20 in the following context:

wherein the bearing member includes an external securing surface, and the second securing surface includes an internal securing surface, the external securing surface and the internal securing surface having complementary tapered configurations for interlocking in response to seating engagement of the complementary tapered configurations; and

wherein the bearing member includes a rib projecting from the bearing member, and the first securing element includes a recess in the shell member for receiving the rib of the bearing member, the tapered configuration of the internal securing surface extends between an upper end and a lower end.

(U.S. Patent No. ’243, Reexam., Cl. 20 (issued Dec. 7, 2010) (emphasis added); Pls. Op. Br. 27; Defs. Op. Br. 37.) Plaintiffs contend that “bearing member” as used in claim 20 should be construed as “bearing member that could be chosen.” (Pls. Op. Br. 27.) Defendants contend that “bearing member” as used in claim 20 should be construed as “a single bearing member including both a complementary interlocking taper structure and a rib projecting from the bearing member.” (Defs. Op. Br. 37-38.)

First, both parties rely on intrinsic evidence in support of their proposed constructions of “bearing member.” Specifically, both parties refer to the language in claim 20’s preamble which recites:

20. An assembly having a shell member and an internal bearing member for selective securement within the shell member interoperatively, the internal bearing member being selected from a plurality of bearing members having different characteristics, including different securement characteristics, such that the acetabular cup assembly selectively is provided with characteristics

corresponding to the characteristics of the selected internal bearing member, the shell member comprising . . .

(U.S. Patent No. '243, Reexam., Cl. 20 (issued Dec. 7, 2010); Defs. Op. Br. 38; Pls. Op. Br. 27.)

Based on the language in the preamble, Defendants contend that claim 20 refers to a single internal bearing member that is actively selected. (Defs. Op. Br. 38.) Furthermore, Defendants assert that the disputed claim language—namely the two “wherein clauses”—requires that the bearing member have both a tapered outer surface and a rib to lock into a recess. (*Id.*) In support of this construction, Defendants focus on the term “the” before “bearing member” to argue that the selected bearing member must have all of the securing elements recited in both clauses.<sup>15</sup>

U.S. Patent No. '243, Reexam., Cl. 20 (issued Dec. 7, 2010).

To the contrary, Plaintiffs argue that “a person of ordinary skill in the art reading claim 20 would understand that the bearing member of the claimed assembly can be selected from different bearing members that each have different securement characteristics.” (Pls. Op. Br. 28.) Plaintiffs further contend that consistent with the alternate bearings described repeatedly throughout the specification, the disputed language in the “wherein” clauses describes these different bearings and their securement mechanisms. (Pls. Resp. Br. 23.) The first clause describes a bearing member with an external securing surface and a taper mechanism—such as a ceramic or metal bearing. (*Id.* at 23-24.) The second clause describes a bearing member with a rib mechanism—such as a polyethylene bearing. (*Id.* at 23-24.)

Defendants accurately couch this dispute as “whether [Plaintiffs] should be permitted to read the phrase ‘that could be chosen’ into the claim, or whether the claim language should be construed as written.” (Defs. Op. Br. 37.) Defendants claim that Plaintiffs’ proposed

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<sup>15</sup> Defendants rely on Warner-Lambert Co. v. Apotex Corp. which states that “[i]t is a rule of law well established that the definite article ‘the’ particularizes the subject which it precedes. It is a word of limitation as opposed to the indefinite or generalizing force of ‘a’ or ‘an.’” (Defs. Resp. Br. 37 (citing Warner-Lambert Co. v. Apotex Corp., 316 F.3d 1348, 1356 (Fed. Cir. 2003) (citations omitted))).

construction has no basis in the claim language as it improperly seeks to insert the words “could be chosen.” (Id. at 38-39.) This Court agrees with Defendants that the words “could be chosen” should not be read into the claim. Additionally, this Court agrees with Defendants that the claim language should be construed as written. Defendants’ proposed construction, however, does not construe the claim language as written and is inconsistent with the existence of the alternate bearings described repeatedly throughout the specification. See U.S. Patent No. ’243, at col.5:11-21, 55-60, col.6:12-14, col.9:11-19, col.10:43-46 (issued Nov. 5, 2002). Ironically, Plaintiffs’ interpretation of the claim language—that the “wherein” clauses describe alternative bearings—appears to comport with the plain and ordinary meaning of the claim language as it would be understood by an ordinary person skilled in the art. The first “wherein” clause describes a bearing member including an external hard surface (i.e. ceramic or metal bearing). The second “wherein” clause describes a bearing member with a rib projecting securement mechanism (i.e. polyethylene bearing). Nothing in the patent itself, briefing, or arguments suggests that what was intended with these clauses was a single bearing member with both a taper mechanism and rib mechanism. Indeed, no embodiment using both securing mechanisms is described in the ’243 Patent.<sup>16</sup> Instead, a reasonable understanding of the claim language suggests that a single bearing member is ultimately chosen from a plurality of bearing members, such as one with a taper mechanism or one with a rib mechanism.

Rather than provide clarification to the plain language, the parties’ constructions needlessly complicate the otherwise understandable claim language. Thus, in light of the claim language and this Court’s analysis, “bearing member” does not need to be construed and should be given its plain and ordinary meaning.

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<sup>16</sup> The Court notes that DePuy’s arguments regarding construction of the terms “selective . . . for effective selective securement” further establish this point. (DePuy Supplemental Opening Markman Brief (“DePuy Suppl. Op. Br.”) at 2-3, 3 n. 1)

**f. “selectable . . . effective selective securement”**

Plaintiffs and DePuy disagree on the construction of “selectable . . . for effective selective securement” as it appears in claims 20, 27, and 41.<sup>17</sup> The remaining Defendants—Wright, S&N, and Zimmer—assert that these terms do not require construction. Plaintiffs argue that “selectable . . . for effective selective securement” should be construed as “can be chosen to be secured by its securement features so as to remain within the shell cavity.”<sup>18</sup> DePuy argues that “selectable . . . for effective selective securement” should be construed as “requires that the selected bearing be effectively secured by one securing structure or the other, but not both.” It appears that the parties’ proposed constructions are substantially similar. The key dispute is that DePuy’s construction includes the limitation that both securing elements cannot be selected whereas Plaintiffs’ proposed construction does not. (Pls. Op. Br. 26.)

Plaintiffs argue that the disputed terms should be considered in the context of claim 20’s language as a whole. Claim 20 recites:

the first and second securing structures being juxtaposed with one another and placed at relative locations such that the effectiveness of each of the first and second securing elements is maintained while in the presence of the other of the first and second securing elements, whereby the one and the another of the internal bearing members each is selectable for effective selective securement within the shell member to complete the acetabular cup assembly interoperatively[.]

U.S. Patent No. ’243, Reexam., Cl. 20 (issued Dec. 7, 2010). Plaintiffs argue that in this context, alternate bearings can be chosen to be secured within the shell. (Pls. Op. Br. 25-26.) According to Plaintiffs, nothing in the claim language requires that only one type of bearing be selected for

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<sup>17</sup> The disputed language in claim 20 is as follows: “is selectable for effective selective securement within the shell member.” (U.S. Patent No. ’243, Reexam., Cl. 20 (issued Dec. 7, 2010); Pls. Op. Br. 25; DePuy. Suppl. Op. Br. 1.) The disputed language in claims 27 and 41 is as follows: “is selectable for effective selective axial securement within the cavity of the shell member.” (U.S. Patent No. ’243, Cl. 27 (issued Nov. 5, 2002); U.S. Patent No. ’243, Reexam., Cl. 41 (issued Dec. 7, 2010); Pls. Open. Br. 25; DePuy Suppl. Op. Br. 1.)

<sup>18</sup> Plaintiffs note that they would be amenable to joining Defendants Zimmer, Wright, and S&N’s position that the terms not be construed at all and instead be given their plain and ordinary meaning. (Pls. Op. Br. 26 n. 11; Pls. Resp. Br. 20.)

securement as Defendants suggest. (Id. at 25-26.) In other words, Plaintiffs assert that “the language does not prevent additional support of another securement mechanism.” (Id. at 26.)

DePuy argues that the word “selective” requires that one bearing be effectively secured by one securing structure or the other, but not both. (DePuy Suppl. Op. Br. 2.) Furthermore, DePuy asserts that the specification does not describe or propose any type of bearing that includes both types of securement mechanisms—taper and rib securements. (Id. at 3.) DePuy also relies on the prosecution history of the ’243 Patent in support of its proposed construction. Specifically, DePuy notes that the Rule 1.131 Declaration submitted during reexamination of the ’243 Patent by Nicholas Dong—one of the inventors of the ’243 Patent—does not describe a bearing that is secured with both a rib and a taper. (Id. at 4 (citing Ex. C at ¶5, STRTRID00007671-7672, Ex. D at ¶¶ 5, 7-9, STRTRID00007699-7701).) Additionally, DePuy relies on remarks made in the March 16, 2010 Amendment which clarify that “whereby the selected bearing member would include a securing element compatible with one of the first or second securing elements in the shell member.” (Defs. ’243 Markman PP at 5.)

In reviewing the language in claim 20, the context for the disputed language is helpful, namely “whereby the one and the another of the internal bearing members each is selectable for effective selective securement within the shell member to complete the acetabular cup assembly interoperatively.” The plain and ordinary meaning of this language suggests that “the one” bearing and “the another” bearing members are each selectable for effective securement within the shell member. However, nothing in the plain language indicates that more than one bearing member can be selected at the same time for securement. In fact, the briefing and Markman hearing made clear that only one bearing member can be secured in a shell at any given time and because there is no intrinsic evidence indicating that any bearing member engages both securing

elements (taper and rib), it would follow that only one securement element is engaged by each bearing member. Thus, only one securement element is “selectable” for effective securement. To the extent that one bearing is chosen and not actually secured, it can be argued that the alternative bearing member could still be chosen for securement. This, however, would not be effective “selective” securement.

Accordingly, this Court finds that it would be instructive to a jury and for purposes of clarifying the terms—as understood in the patent claim language and specification—to include the concept that only one bearing can be chosen for securement at any given time. Neither party’s proposed construction effectively captures this concept. Thus, a combination of the parties’ proposed constructions is appropriate here. This Court finds that “selectable [for] effective selective securement” means that it “requires that the selected bearing be effectively secured by one securing structure or the other, but not both simultaneously.”

#### **g. Language relating to securement tapers**

Plaintiffs and Defendants—with the exception of S&N—disagree about the language relating to the securement tapers as it appears in claims 20, 27, 41, and 53. The disputed language appears in the following context:

1. Claim 20: “the second securing element having a second securing structure compatible with the securement characteristics of at least another of the plurality of internal bearing members”;
2. Claim 27: “the second securing element having a second securing structure compatible with the securement characteristics of at least another of the plurality of internal bearing members”;
3. Claim 41: “the internal securement taper extending axially and being compatible with the outer securement taper of the at least one second internal bearing member of the plurality of internal bearing members to axially secure the second internal bearing member within the shell member”; and
4. Claim 53: “the internal securement taper is compatible with the outer securement taper of the second internal bearing member of the plurality of internal bearing members to axially secure the second internal bearing member with the shell.”

(U.S. Patent No. '243, Reexam., Cl. 20, 41, 53 (issued Dec. 7, 2010); U.S. Patent No. '243, Cl. 27 (issued Nov. 5, 2002).) Defendants propose the following construction for the disputed language: "requires that the internal taper of the shell mates with the external taper of a sleeve secured to and separate from the bearing member." (Defs. Op. Br. 31.) Plaintiffs do not offer a construction for these terms and argue that the ordinary meaning applies. (Pls. Op. Br. 29.) S&N agree with Plaintiffs that no construction is required for these terms. (Id.; Defs. Op. Br. 30 n. 11.)

In support of their proposed construction, Defendants assert that the '243 Patent explains that the tapered securing surface of the shell is compatible with a bearing only by using an intervening sleeve. (Defs. Op. Br. 32.) Further, Defendants point to the prosecution history where Plaintiffs described the acetabular shell as capable of accepting plastic, ceramic, or metal liners where a "titanium adapter" or sleeve is necessary to use the ceramic or metal liner. (Id. at 33 (citing Ex. 4, at SRTRID00007699-700.)) Additionally, Defendants argue that the patent acknowledges that the hard bearings (*i.e.* ceramic or metal) do not work with the "snap-fit connection" into the shell. (Id. (citing U.S. Patent No. '243 at col.5:32-41, col.6:20-25 (issued Nov. 5, 2002).)) The patent further explains that a securing sleeve is needed to facilitate the "tapered" connection for hard bearings. (Defs. Op. Br. 33.) Additionally, Defendants note that the patent describes three embodiments using a tapered connection and all of them illustrate a bearing secured to the shell with an intervening sleeve. (Id. at 34 (citing U.S. Patent No. '243 at col.6:20-7:10, col.7:24-8:5, col.10:31-11:30 (issued Nov. 5, 2002).))

Plaintiffs argue that Defendants' proposed construction which includes the word "sleeve" has no basis in the claim language. (Pls. Op. Br. 30.) Specifically, Plaintiffs note that the word sleeve does not appear anywhere in the asserted claims. (Id.) Plaintiffs further argue that "the

asserted claims recite the ‘two piece’ acetabular cup assemblies described in the patent as comprising a shell component and a bearing component.” (Id.) Plaintiffs also contend that “‘three-piece’ assemblies are expressly claimed in unasserted claims of the ’243 Patent.” (Id.) At bottom, Plaintiffs argue that the disputed language should be given its plain and ordinary meaning.

It is appropriate for this Court to first consult the intrinsic evidence related to the disputed language. Bristol-Myers Squibb Co., 86 F. Supp. 2d at 448. This Court agrees with Plaintiffs that the word “sleeve” does not appear in the patent itself. However, a review of the patent specification reveals that the inventor contemplated that the use of a “metallic securing member” or a sleeve to assemble hard bearings to the shell. U.S. Patent No. ’243 at col.2:1-18, col.8:6-14 (issued Nov. 5, 2002) (identifying securing sleeve as part of “the present invention”). Importantly, based on documents disclosed during the prosecution of the patent, Stryker conceded that the contemplated ceramic or metal liner could only be assembled with the shell by using adaptor sleeves. (See Dkt. 79, Ex. 4, at SRTRID00007699-701.) In essence, Plaintiffs are attempting to claim a two-piece assembly using a tapered connection without a sleeve; however there is no evidence that Stryker contemplated a hard bearing being secured to the shell without a sleeve. Indeed, at the Markman hearing, when asked about whether Plaintiffs had an embodiment where a hard bearing could be secured to the shell without a sleeve, Plaintiffs counsel conceded that none existed. (Markman Hrg. Tr. at 174 (May 2, 2013).)

Accordingly, this Court concludes that the disputed claim language is construed to mean “requires that the internal taper of the shell mates with the external taper of a metallic securing member (*i.e.* sleeve) secured to and separate from the bearing member.”

## **The '097 Patent**

Plaintiffs and DePuy seek claim construction for fourteen disputed claim terms in connection with the '097 Patent. These terms will be addressed categorically as follows: location terms, connection terms, anti-rotation terms, bearing terms, and typographical errors.

### **Location Terms**

Plaintiffs and DePuy dispute the meaning of “between” and “cavity” as they appear in the context of six claim terms. These six claim terms relate to the location of elements relative to either the “shell cavity” or the “bearing cavity.” The disputed terms include the following:

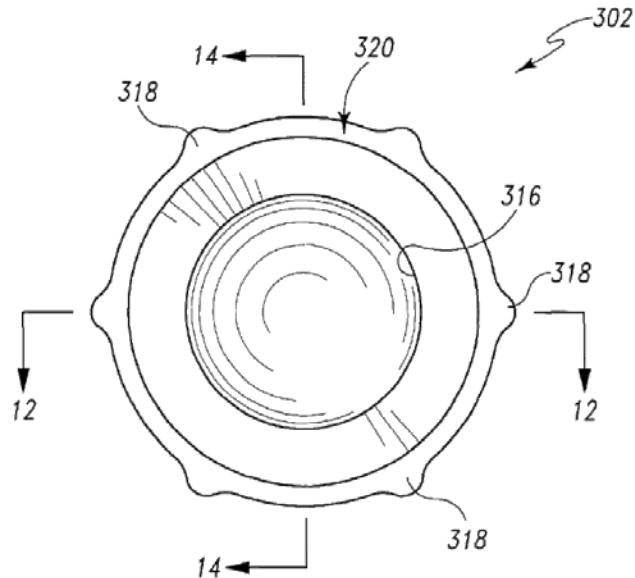
1. Claim 1: “a female taper between said locking recess and said shell cavity”;
2. Claim 1: “a male taper between said locking member and said bearing cavity”;
3. Claim 9: “a female taper between said anti-rotation recesses and said shell cavity”;
4. Claim 9: “a male taper between said anti-rotation protrusions and said bearing cavity”;
5. Claim 14: “a locking recess disposed between said anti-rotation recesses and said shell cavity”; and
6. Claim 14: “a locking member disposed between said anti-rotation protrusions and said bearing cavity.”

U.S. Patent No. '097, Cl. 1, 9, 14 (issued Aug. 26, 2003). These six claim terms—namely the construction of “between” and “cavity”—will be addressed in tandem as they present common issues to be resolved uniformly.

Plaintiffs argue that the term “between” should be construed as “located in the space that separates.” (Pls. Op. Br. 8.) Plaintiffs state that their proposed construction is supported by the intrinsic record and they identify Figures 8-12 for support. (*Id.*) Plaintiffs also reference a dictionary definition which defines “between” to mean “in the time, space, or interval that separates.” (*Id.* (citing Merriam-Webster’s Collegiate Dictionary, App. E4).)

Plaintiffs argue that the word “cavity” should be construed as “the interior volume defined by the shell/bearing.” (Pls. Op. Br. 8.) Plaintiffs contend that the claim language

supports this construction. For instance, the claim language requires “a shell defining a shell cavity” and a “bearing defining a bearing cavity.” (*Id.* at 8-9 (citing U.S. Patent No. ’097, Cl. 1 (issued Aug. 26, 2003).) Additionally, Plaintiffs reference Figure 11 illustrating that “the cavity is the space inside the bowl of the bearing labeled as item 316 below.”



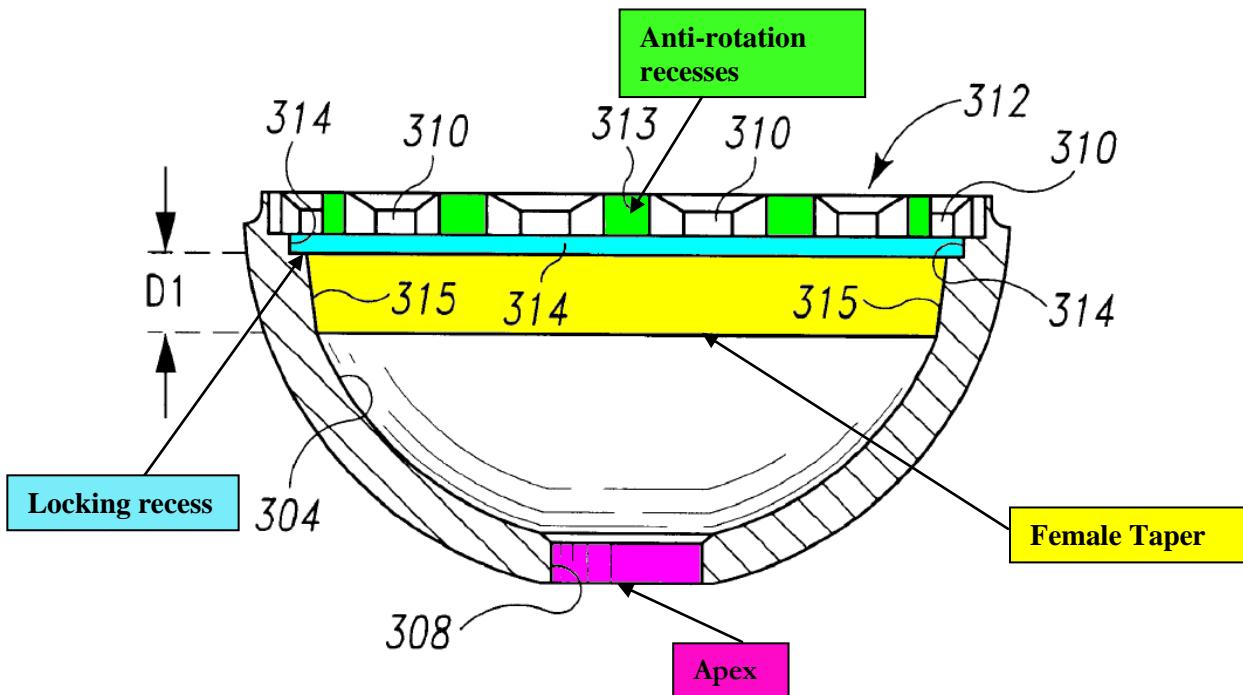
U.S. Patent No. ’097, Fig. 11 (issued Aug. 26, 2003). Plaintiffs note that the bearing fits in the entire interior volume of the shell and would not fit “into” something smaller. (Pls. Op. Br. 9.) Thus, Plaintiffs argue that the cavity should be construed as “the interior volume defined by the shell/bearing.”

DePuy does not offer a specific construction for “between” and instead argues that the disputed language should include “is located, in an axial direction” before the word “between.” (DePuy’s Opening Markman Brief (“DePuy Op. Br.”) at 11.) Additionally, DePuy contends that “cavity” should be construed to mean “the apex of the shell.” (*See id.*) According to DePuy, their proposed construction is based on the location of the connection mechanisms, and the way that the term “cavity” is used in that particular context. (DePuy’s Responsive Markman Brief

(“DePuy Resp. Br.”) at 8.) DePuy states that the patent specification supports this proposed construction. For instance, DePuy points to following language in the ’097 Patent:

The shell 300 possesses a plurality of tangs 310 located at an upper rim 312 of the shell 300. Each of the plurality of tangs 310 extends inwardly toward the center of the shell 300 as shown in FIG. 8. The plurality of tangs 310 define a plurality of anti-rotation recesses 313 which are evenly spaced around the upper rim 312 of the shell 300 as shown in FIG. 8. The shell 300 also includes an annular recess 314 which is positioned immediately below the plurality of tangs 310 (see FIGS. 8 and 9). The shell 300 also includes a female taper 315 which is defined in an inner surface of the shell as shown in FIG. 9. The female taper 315 extends around the entire periphery of the cavity 304 of the shell 300. Moreover, the female taper 315 extends axially for a distance D1 near its upper rim 312 as shown in FIG. 9.

(DePuy Op. Br. 11-12 (citing Ex. A, U.S. Patent No. ’097 at col.6:64 – col.7:11 (issued Aug. 26, 2003)).) DePuy argues that in simpler terms, this language means that the anti-rotation recesses are near the upper rim of the shell; the annular recess is below that moving toward the apex of the shell; and the female taper extends around the entire periphery of the cavity. (DePuy Op. Br. 12.) DePuy also cites to figures in support of their proposed construction. For instance, DePuy argues that in Figure 9, as reproduced below, the female taper is located in an axial direction between the locking recess and the apex of the shell. (*Id.*)



(DePuy Op. Br. 13; U.S. Patent No. '097, Fig. 9 (issued Aug. 26, 2003).)

First, Plaintiffs' proposed construction of "between" as "located in the space that separates" is not rooted in intrinsic evidence and is merely a dictionary definition. In this instance, it is not appropriate to reference dictionary definitions or any other extrinsic evidence because the claim language is not ambiguous. See Vitronics Corp., 90 F.3d at 1585 (noting that it is unnecessary and, hence, legally incorrect to rely on extrinsic evidence when the specification clearly and unambiguously defines disputed claim term). The intrinsic evidence—namely the claim language—can guide this Court effectively in construing "between." Furthermore, Plaintiffs' construction of "between" is vague and may confuse, rather than aid, a jury. Similarly, DePuy's proposed construction of the disputed claim language "is located, in an axial direction" would not serve to aid the jury. Reading the disputed claim language in various contexts, this Court finds that construction of the claim term "between" is not necessary because

its plain and ordinary meaning is clear. Nevertheless, this Court agrees with DePuy that reading in the words “is located” before “between” would clarify the disputed language for a jury.

Next, Plaintiffs’ construction of cavity being the entire volume of the shell is broad and does not necessarily comport with the intent of the inventors based on the specification. Plaintiffs state that their proposed construction is supported by the intrinsic record, but fail to articulate anything particular in the claim language or patent specification for support other than pointing to various figures. Additionally, Plaintiffs’ proposed construction would not aid the jury in further understanding or clarifying the disputed language. Likewise, DePuy’s proposed construction of “cavity” unnecessarily complicates the meaning of the word. This Court finds that “cavity” should be given its plain and ordinary meaning and does not require construction.

Accordingly, this Court finds that the disputed language shall be given the following meanings. First, as used in claim 1, “a female taper between said locking recess and said shell cavity” means “a female taper is located between said locking recess and said shell cavity.” Second, as used in claim 1, “a male taper between said locking member and said bearing cavity” means “a male taper is located between said locking member and said bearing cavity.” Third, as used in claim 9, “a female taper between said anti-rotation recesses and said shell cavity” means “a female taper is located between said anti-rotation recesses and said shell cavity.” Fourth, as used in claim 9, “a male taper between said anti-rotation protrusions and said bearing cavity” means “a male taper is located between said anti-rotation protrusions and said bearing cavity.” Fifth, as used in claim 14, “a locking recess disposed between said anti-rotation recesses and said shell cavity” means “a locking recess is located between said anti-rotation recesses and said shell cavity.” Lastly, as used in claim 14, “a locking member disposed between said anti-rotation

protrusions and said bearing cavity” means “a locking member is located between said anti-rotation protrusions and said bearing cavity.”

## **Connection Terms**

Plaintiffs and DePuy disagree about the meaning of two “connection” terms: (1) the taper-taper connection, and (2) the locking member-locking recess connection. The disputed language—although substantially similar—will be addressed individually as they appear in different contexts.

### Taper-Taper Connection

The disputed language relating to the taper-taper connection appears in claims 1 and 9 in the following context: “wherein when said bearing is positioned within said shell cavity, (i) said male taper and said female taper engage each other to provide a first connection between said bearing and said shell.” U.S. Patent No. ’097, Cl. 1, 9 (issued Aug. 26, 2003). Plaintiffs argue that these terms should be construed to mean “wherein when said bearing is positioned within said shell cavity, (i) said male taper and said female taper come together to restrict relative motion between each other to provide a first locked association between said bearing and said shell.” (Pls. Op. Br. 14.) DePuy argues that the terms should mean “when the bearing is placed within the shell, the male taper of the bearing engages the female taper of the shell; this is a first connection between the bearing and shell.” (DePuy Op. Br. 19.)

As a preliminary matter, Plaintiffs contend that “engage” means “to come together and restrict relative motion.” (Pls. Resp. Br. 13.) At the Markman hearing, DePuy noted that it “does not oppose this aspect of Styker’s proposed construction.” (DePuy ’097 Patent Markman Powerpoint Presentation (“DePuy ’097 Markman PP”) at 17; Markman Hrg. Tr. at 31 (May 9, 2013).) Because “engage” should be given its plain and ordinary meaning, it is unnecessary to

construe this term specifically. The key dispute between the proposed constructions relates to whether there is a “locked” connection. Plaintiffs argue that there is a “locked association” between the bearing and the shell whereas DePuy does not.

In support of their proposed construction, Plaintiffs rely first on intrinsic evidence. As explained in the patent specification, “[t]he taper feature of the present invention provides mechanical lock integrity . . . .” (Pls. Op. Br. 15 (citing U.S. Patent No. ’097, col.6:3-4).) Plaintiffs note that the specification expressly states that the purpose of tapers is to secure the bearing in the shell. (*Id.*) Once the shell and bearing have been engaged, Plaintiffs argue that a “locked association” is created. (*Id.* at 16.) Plaintiffs assert that the specification recites that the tapers “engage and lock” the bearing within the shell. (*Id.* (citing U.S. Patent No. ’097 at col.7:37-42, col.6:27-29 (issued Aug. 26, 2003)).)

DePuy argues that the specification makes clear that the tapers have a “connection” to maintain alignment, but there is no requirement that there be a “locked association.” (DePuy Op. Br. 21 (citing Ex. A, U.S. Patent No. ’097 at col.5:1-5 (issued Aug. 26, 2003)).) DePuy notes that the specification explicitly states that tapers “may be a self-holding taper (*i.e.* self-locking) or a self releasing taper.” (DePuy Op. Br. 20 (citing Ex. A, U.S. Patent No. ’097 at col.5:5-6 (issued Aug. 26, 2003)).) DePuy contends that requiring a “locked” connection essentially reads out the “self-locking” limitation of dependent claim 4. (*Id.*)

This Court agrees with DePuy that the patent claim language and specification do not require that the “connection” be a “locked” association. Even putting aside the “self-locking” embodiment for which both Plaintiffs and DePuy put forth arguments, nothing in the intrinsic evidence suggests that the connection must be “locked.” This Court concludes that DePuy’s proposed construction is appropriate here. Thus, the disputed language “wherein when said

bearing is positioned within said shell cavity, (i) said male taper and said female taper engage each other to provide a first connection between said bearing and said shell" will be construed as "when the bearing is placed within the shell, the male taper of the bearing engages the female taper of the shell; this is a first connection between the bearing and shell."

#### The Locking Member-Locking Recess Connection

The disputed language relating to the locking member-locking recess connection appears in claim 14 and states the following: "wherein when said bearing is positioned within said shell cavity, (i) said locking member is positioned within said locking recess to provide a first connection between said bearing and said shell." U.S. Patent No. '097, Cl. 14 (issued Aug. 26, 2003). Plaintiffs argue that the disputed language should be construed as "wherein when said bearing is positioned with said shell cavity, said locking member is positioned within said locking recess to provide a first locked association between said bearing and said shell." (Pls. Op. Br. 18.) DePuy argues that the disputed language should mean "when the bearing is placed within the shell, a locking member on the bearing is positioned within a locking recess on the shell, providing a first connection between said bearing and the shell." (DePuy Op. Br. 22.)

As previously discussed with respect to the taper-taper connection, the key dispute between the proposed constructions is whether there is a "locked" connection. Plaintiffs argue that there is a "locked" association whereas DePuy asserts there is not. (See Pls. Op. Br. 18; see also DePuy Op. Br. 22.) Plaintiffs and DePuy rely significantly—if not completely—on the same arguments made with respect to the taper-taper connection. (See Pls. Op. Br. 18; see also DePuy Op. Br. 22; Pls. Resp. Br. 15-16; DePuy Resp. Br. 14-15.)

For the same reasons articulated with respect to the taper-taper connection, this Court finds that the intrinsic evidence does not require that the locking member-locking recess

connection be a “locked association.” The term “locked” does not appear in the claim language or patent specification. Including the word “locked” is too specific and potentially misleading as it is not based in the patent. Defendants’ proposed construction provides a clear construction of the disputed language. Accordingly, this Court concludes that “wherein when said bearing is positioned within said shell cavity, (i) said locking member is positioned within said locking recess to provide a first connection between said bearing and said shell” will be construed as “when the bearing is placed within the shell, a locking member on the bearing is positioned within a locking recess on the shell, providing a first connection between said bearing and the shell.”

### **Anti-Rotation Terms**

Plaintiffs and DePuy dispute the meaning of two “anti-rotation” terms relating to recesses in the shell and protrusions on the bearing. The disputed language relating to both terms appears in the following context in claim 5: “anti-rotation recesses defined in said inner surface” and “anti-rotation protrusions in said outer surface.” U.S. Patent No. ’097, Cl. 5 (issued Aug. 26, 2003). Although relating to different parts of the shell and the bearing, claim construction of these terms will be addressed simultaneously because the arguments and disputes are substantially similar.

Plaintiffs argue that the disputed language relating to anti-rotation recesses should be construed as “depressions defined in the inner surface of the shell to receive protrusions to prevent rotation of the bearing within the shell.” (Pls. Op. Br. 20.) DePuy argues that the disputed language relating to anti-rotation recesses means “anti-rotation recesses are in the inner surface of the shell.” (DePuy Op. Br. 23.)

Plaintiffs argue that the disputed language relating to anti-rotation protrusions should be construed as “extensions extending from the outer surface of the bearing to prevent rotation of the bearing within the shell.” (Pls. Op. Br. 22.) DePuy argues that the disputed language relating to anti-rotation protrusions should be construed as “anti-rotation protrusions are in the outer surface of the bearing.” (DePuy Op. Br. 23.)

There are two key disputes at issue with respect to the claim construction of the anti-rotation terms. First, Plaintiffs seek to clarify the meaning of the words “recess” and “protrusions” while DePuy does not. Secondly, Plaintiffs use the word “prevent” in their proposed constructions to clarify “anti-rotation” of the bearing within the shell while DePuy argues that the anti-rotation protrusions and recesses were designed only to “inhibit” rotational movement.

#### Recesses/Protrusions

In construing the disputed language, it is appropriate to first consider the intrinsic evidence. First, as it relates to the “recesses,” Plaintiffs point to Figure 8 which illustrates the “depressions or indentations in the shell’s inner rim.” (Pls. Op. Br. 21; U.S. Patent No. ’097, Fig. 8 (issued Aug. 26, 2003).) Plaintiffs argue that “[i]f the recesses were not depressions, the bearing’s protrusions could not be accommodated ‘within’ them as the ’097 Patent requires.” (Pls. Op. Br. 21.) With respect to the “protrusions,” Plaintiffs’ reference to Figure 11 demonstrates that the protrusions or “extensions” on the bearing fit within the recesses of the shell. (Id. at 22-23.) Plaintiffs concede that their “constructions [are] only necessary to ensure that, through its infringement contentions, DePuy was not seeking to expand the scope of its patents to cover protrusions that were really recesses and vice versa.” (Pls. Resp. Br. 19-20.)

DePuy asserts that the terms “recesses” and “protrusions” should be given their plain and ordinary meaning. (DePuy Op. Br. 25.) DePuy opposes Plaintiffs’ proposed inclusion of “depressions” for “recesses” and “extensions” for “protrusions” because it potentially “add[s] heightened functional requirements into the claims.” (Id. at 24.) DePuy notes that the words “depression” and “extension” do not appear in the ’097 Patent. (Id. at 24-25.)

Based on the claim language and patent specification, this Court finds that it is unnecessary to include the words “depressions” for “recesses” and “extensions” for “protrusions” in construing the disputed language. The terms “recesses” and “protrusions” do not present any ambiguity. Moreover, the words “depressions” and “protrusions” are merely synonyms which do not serve to clarify their meanings. Patriot Universal Holdings, LLC et al v. Formax, Inc., No. 10-C-355, 2011 U.S. Dist. LEXIS 60760, at \*52 (E.D. Wis. June 7, 2011) (noting that “[c]laim construction is not an invitation to substitute synonyms”). Thus, the terms “recesses” and “protrusions” will be given their plain and ordinary meaning.

#### Anti-rotation Function

In proposing a construction for the term “anti-rotation,” Plaintiffs point to the patent specification which states that the “anti-rotation” function provides that the “rotational movement of the bearing [ ] relative to the shell [ ] is inhibited.” U.S. Patent No. ’097 at col.8:57-59 (issued Aug. 26, 2003). Plaintiffs also note that the patent specification states that the projections “prevent rotation” of the bearing. (Pls. Resp. Br. 20 (citing U.S. Patent No. ’097 at col.4:5-8 (issued Aug. 26, 2003)).)

DePuy argues that “the anti-rotation protrusions/recesses were designed to ‘inhibit’ rotational movement, and the patent does not require such movement to be completely prevented.” (DePuy Op. Br. 25-26 (citing Ex. A, U.S. Patent No. ’097 at col.7:63-65, col.8:57-

59 (issued Aug. 26, 2003)).) Additionally, DePuy argues that only dependent claim 5 requires that there rotational movement be inhibited. (DePuy Op. Br. 26.) However, claims 9 and 14 only require a “second connection” between the shell and the bearing. (*Id.*) DePuy argues that Plaintiffs are attempting to read limitations from the specification into the claims in their proposed construction.

In construing the “anti-rotation” function aspect of the disputed claim language, this Court finds that including the word “prevent” rotational movement is too specific and potentially confusing. The word “anti-rotation” sufficiently describes the feature to be conveyed and does not require further construction.

Based on the intrinsic evidence and the arguments presented, this Court agrees with DePuy’s proposed constructions relating to the anti-rotation terms in dispute. Accordingly, “anti-rotation recesses defined in said inner surface” is construed as “anti-rotation recesses are in the inner surface of the shell.” Additionally, “anti-rotation protrusions defined in said outer surface” is construed as “anti-rotation protrusions are on the outer surface of the bearing.”

### **Bearing Term**

Plaintiffs and DePuy dispute the meaning of “bearing” as it appears and is used in claims 1, 3, 5, 7, 9, and 12-15. Plaintiffs argue that “bearing” should be construed as “a unitary structure (as opposed to a liner/bearing subassembly) of a given material with an outer surface that is generally hemispherical in shape, and an inner surface configured to receive a prosthetic femoral ball.” (Pls. Op. Br. 27.) DePuy argues that “bearing” should be given its plain and ordinary meaning. (DePuy Op. Br. 27.)

Plaintiffs make clear that they seek a limited construction of the term “bearing” in an effort to prevent DePuy from “assert[ing] its patent against a three-piece Stryker product.” (Pls.

Op. Br. 27.) Plaintiffs contend that “DePuy has thus far refused to acknowledge that its claimed ‘bearing’ does not encompass a liner/bearing subassembly, thus necessitating construction of the term by this Court.” (Pls. Resp. Br. 24.) Plaintiffs reference the PTO’s restriction that DePuy limit its claims.

DePuy repeatedly argues that the term “bearing” is not ambiguous and should be given its plain and ordinary meaning. A bearing is the part that receives the femoral head, according to DePuy. (DePuy Op. Br. 27; DePuy Resp. Br. 18.)

Based on the claim language and intrinsic evidence, this Court finds that the term “bearing” is not ambiguous and does not require construction. Moreover, Plaintiffs’ argument in support of its proposed construction relies heavily on the fact that the PTO restricted DePuy to limit its claims to either the two-piece or three-piece claims. However, several courts have articulated that restriction requirements are administrative tools and do not help inform courts with respect to claim construction. See e.g., Colorquick v. Eastman Kodak Co., No. 06-390, 2008 U.S. Dist. LEXIS 48739, at \*34 (E.D. Tex. June 25, 2008) (“[A]s noted by the significant number of other courts refusing to use restriction requirements to limit the claims during claim construction, a restriction requirement is an administrative tool, and therefore offers little guidance in construing the claim language.”); see also Amersham Pharmacia Biotech, Inc. v. Perkin-Elmer Corp., No. C-97-04203, 2000 U.S. Dist. LEXIS 22942, \*43-44 (N.D. Cal. Feb. 28, 2000) (“A restriction requirement is not a rejection and it cannot be used to controvert the plain language of the claim.”). In light of the relevant case law and arguments set forth in the briefs and at the Markman hearing, this Court does not find it appropriate to construe this term. Accordingly, the term “bearing” will be given its plain and ordinary meaning.

## Typographical Errors/ Incomplete, Incorrect, or Indefinite Terms

It is within a district court's power to "correct obvious minor typographical and clerical errors in patents" but "major errors are subject only to correction by the PTO." Novo Indus. L.P. v. Micro Molds Corp., 350 F.3d 1348, 1357 (Fed. Cir. 2003). A district court may correct an error in a patent if "(1) the correction is not subject to reasonable debate based on consideration of the claim language and the specification and (2) the prosecution history does not suggest a different interpretation of the claims." Ultimax Cement Mfg. Corp. v. CTS Cement Mfg. Corp., 587 F.3d 1339, 1353 (Fed. Cir. 2009) (citing Novo Indus. L.P., 350 F.3d at 1357). "Those determinations must be made from the point of view of one skilled in the art." Ultimax, 587 F.3d at 1353.

Plaintiffs and DePuy dispute the meaning of three claim terms in the '097 Patent that DePuy labels as "typographical errors." Each of the disputed claim terms will be addressed in turn.

### ***"configured with, and (ii)"***

Plaintiffs and DePuy disagree about the meaning of "configured with, and (ii)" as it appears in claims 1, 9 and 14 as follows:

1. claim 1: "said bearing having an outer surface configured with, and (ii) a locking member extending outwardly therefrom and (ii) a male taper between said locking member and said bearing cavity";
2. claim 9: "said bearing having an outer surface configured with, and (ii) a second number of anti-rotation protrusions, and (ii) a male taper between said anti-rotation protrusions and said bearing cavity"; and
3. claim 14: "said bearing having an outer surface configured with, and (ii) a second number of anti-rotation protrusions, and (ii) a locking member disposed between said anti-rotation protrusions and said bearing cavity."

U.S. Patent No. '097, Cl. 1, 9, 14 (issued Aug. 26, 2003). Plaintiffs argue that the disputed language is ambiguous and therefore indefinite. (Pls. Op. Br. 12.) DePuy argues that

“configured with, and (ii)” was a typographical error and should be corrected to “configured with (i).” (DePuy Op. Br. 27-28.)

The relevant inquiries for this Court to determine are (1) whether the alleged correction is not subject to reasonable debate; and (2) whether the prosecution history does not suggest a different interpretation of the claims. It is appropriate to begin with the intrinsic evidence relating to the disputed language. First, it is helpful to review the disputed language in the context of the entirety of the claim. Claim 1, with the disputed language highlighted, reads as follows:

A prosthetic cup assembly, comprising:

a shell defining a shell cavity, said shell including an inner surface configured with (i) a locking recess defined therein, and (ii) a female taper between said locking recess and said shell cavity; and

a bearing defining a bearing cavity adapted to receive a prosthetic ball therein, said bearing having an outer surface configured with, and (ii) a locking member extending outwardly therefrom, and (ii) a male taper between said locking member and said bearing cavity,

wherein when said bearing is positioned within said shell cavity, (i) said male taper and said female taper engage each other to provide a first connection between said bearing and said shell, and (ii) said locking member is located within said locking recess to provide a second connection between said bearing and said shell.

U.S. Patent No. '097, Cl. 1 (issued Aug. 26, 2003) (emphasis added). The two other claims in dispute—claims 9 and 14—are similarly structured. See U.S. Patent No. '097, Cl. 9, 14 (issued Aug. 26, 2003). As seen in claim 1, there are three sets of romanettes. The first and third paragraphs contain romanettes (i) and (ii). The second paragraph contains romanettes (ii) and (ii). The parties do not dispute that the second paragraph—as written with the duplicate romanettes—does not say what it means.

Plaintiffs argue that the disputed language could mean, for instance, “said bearing having an outer surface configured with, and (ii) (i) a locking member extending outwardly therefrom, and (ii) a male taper between said locking member and said bearing cavity;” or “said bearing having an outer surface configured with (i) a generally hemispherical shape, and (ii) a locking member extending outwardly therefrom; and (ii)(iii) a male taper between said locking member and said bearing cavity.” (Pls. Op. Br. 13.) According to Plaintiffs, because the disputed language could be subject to various interpretations, the claim language is ambiguous and indefinite.<sup>19</sup> (Id. at 12-14.)

On the other hand, DePuy contends that the only reasonable reading of the claim is that instead of duplicate romanettes, the second paragraph should have included romanettes (i) and (ii), similar to the first and third paragraphs. (DePuy Op. Br. 29.) DePuy also points to the prosecution history to demonstrate that claim 33 in the originally filed parent application to the '097 Patent properly uses romanettes (i) and (ii) in each of the three paragraphs. (Id. at 29-30.)

Based on the intrinsic evidence, this Court finds that the disputed language resulted from a typographical error and should be corrected to properly use romanettes (i) and (ii). Despite Plaintiffs’ arguments, there is no reasonable debate regarding correcting the disputed language. None of Plaintiffs’ suggestions for alternate interpretations are reasonably viable. Additionally, the interpretation rendered from the correction is consistent with the prosecution history as well as the reasonable interpretation of the claim language. It is important to note that this Court is not construing the disputed terms here. Instead, as it is within the Court’s discretion to correct typographical errors, it is appropriate in this instance to correct the typographical error in claims

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<sup>19</sup> In order to conclude that a claim term is indefinite, a court must find that the term is “not amenable to construction” or is “insolubly ambiguous.” See, e.g., IGT v. Bally Gaming Int’l, Inc., 659 F.3d 1109, 1119 (Fed. Cir. 2011).

1, 9, and 14. Accordingly, the disputed language “configured with, and (ii)” will be corrected to read “configured with (i).”

***“inner surface”***

Plaintiffs and DePuy disagree about the meaning of “inner” as it appears in dependent claims 2, 13, and 15 of the ’097 Patent. Specifically, the claim language in dispute is “and said locking member extends circumferentially around said inner surface of said bearing.” U.S. Patent No. ’097, Cl. 2, 13, 15 (issued Aug. 26, 2003). Plaintiffs’ proposed construction is identical to the claim language—“and said locking member extends circumferentially around said inner surface of said bearing.” (Pls. Op. Br. 19.) DePuy argues that the term “inner” in this context was a typographical error and should be corrected to “outer.” (DePuy Op. Br. 31.)

Plaintiffs contend that the patent specifically references and defines the “inner surface” of the bearing as the interior surface of the bearing. (See Pls. Op. Br. 19.) Furthermore, the specification notes that “Bearing 16 also includes an inner bearing surface 54 that defines an opening 55 sized to receive a prosthetic femoral ball.” (U.S. Patent No. ’097 at col.4:12-14 (issued Aug. 26, 2003); U.S. Patent No. ’097 at col.7:19-20 (issued Aug. 26, 2003); U.S. Patent No. ’097 at col.8:15-16 (issued Aug. 26, 2003).) Based on this intrinsic evidence, Plaintiffs argue that the disputed language should be given its plain and ordinary meaning.

DePuy contends that the use of “inner” rather than “outer” was a draftsman’s mistake. (DePuy ’097 Markman PP at 56.) DePuy argues that the claim language throughout the patent makes clear that the locking member is located on the outer surface of the bearing. (DePuy Op. Br. 32.) DePuy notes that “[s]uch a connection [between the shell and the bearing] would not be possible if the locking member was on the inner surface of the bearing.” (Id. at 32.) DePuy also

points to every figure in the patent which illustrates the locking member on the outer surface. (Id. at 33.)

In considering whether to correct the disputed language or adopt a proposed construction, this Court must consider (1) whether the alleged correction is not subject to reasonable debate and (2) whether the prosecution history does not suggest a different interpretation of the claims. See Ultimax Cement Mfg. Corp., 587 F.3d at 1353 (citing Novo Indus., LP, 350 F.3d at 1357). Importantly, the correction here is not subject to reasonable debate based on the intrinsic evidence. Throughout the claim language and patent specification, the '097 Patent identifies the locking member being located on the outer part of the bearing. Additionally, at the Markman hearing, except with reference to the particular disputed language, the parties consistently referred to the locking member on the outer surface and not the inner surface of the bearing in the context of the '097 Patent. (Markman Hrg. Tr. at 16, 66, 76 (May 9, 2013).) Furthermore, the prosecution history supports DePuy's position that the locking member was intended to be on the outer surface of the bearing. This Court notes guidance from the Federal Circuit which has "repeatedly and consistently . . . recognized that courts may not redraft claims, whether to make them operable or to sustain their validity." Chef Am., Inc. v. Lamb-Weston, Inc., 358 F.3d 1371, 1374 (Fed. Cir. 2004). However, in this instance, it is clear that inclusion of the word "inner" instead of "outer" was a typographical error. Accordingly, to correct this error to "outer" rather than "inner" as intended by the inventor would not amount to redrafting the claim.

Moreover, as DePuy correctly notes, a claim construction that excludes the preferred embodiment "is rarely, if ever, correct and would require highly persuasive evidentiary support." Vitronics Corp., 90 F.3d at 1583-84 ("[I]t is unlikely that an inventor would define the invention in a way that excluded the preferred embodiment, or that persons of skill in this field would read

the specification in such way.”) Here, if the locking member were on the inner surface of the bearing, every embodiment in the patent would be excluded. The only logical, reasonable interpretation of the disputed language is rendered by correcting the word “inner” to “outer.” This Court will not construe the disputed terms; instead, as it is within the Court’s discretion to correct typographical errors, it is appropriate in this instance to correct the typographical error. Thus, this Court concludes that “inner” as it appears in claims 2, 13, and 15 of the ’097 Patent will be corrected to “outer.”

***“said upper bearing rim”***

Plaintiffs and DePuy dispute the meaning of the claim term “and said first number of recesses is positioned adjacent said upper bearing rim” as it appears in dependent claim 7. Plaintiffs argue that if the disputed language is amenable to construction, it should mean “and said first number of recesses is positioned close to said upper edge of the bearing opposite its apex.” (Pls. Op. Br. 25.) Alternatively, Plaintiffs argue that the claim language be deemed indefinite. (Id.) DePuy argues that inclusion of the word “bearing” was a typographical error and should be corrected to “shell.” (DePuy Op. Br. 34-35.)

Plaintiffs point to figures 10 and 11 of the ’097 Patent to illustrate that the “upper bearing rim” is the “upper edge of the bearing opposite its apex.” (Pls. Op. Br. 25-26.) Specifically, for instance, Plaintiffs assert that figure 10 displays the apex of the bearing as opposite the opening of the bearing. (Id. at 25.) Based on these figures, Plaintiffs state that the intrinsic record supports their proposed construction. (Id. at 26.) Additionally, Plaintiffs contend that there is no antecedent basis for “said upper bearing rim” because no “upper bearing rim” is mentioned in claim 7 or any dependent claim stemming from claim 7. (Id. at 24); see Predicate Logic, Inc. v. Distributive Software, Inc., 544 F.3d 1298, 1305 06 (Fed. Cir. 2008) (“claim terms using ‘said’

are ‘anaphoric phrases, referring to the initial antecedent phrase’’’). According to Plaintiffs, “said upper bearing rim” could either render the claim indefinite or refer to the bearing rim discussed in the specification. (Pls. Op. Br. 24-25.)

DePuy contends that “bearing” should be corrected to “shell” because it was a typographical error. (DePuy Op. Br. 34-35.) DePuy argues that the patent specification demonstrates that the anti-rotation recesses are positioned on the shell, and not the bearing. Specifically, DePuy points to figures 8 and 9 where the anti-rotation recesses are around the upper rim of the shell. (Id. at 35.)

In considering whether to correct the disputed language or adopt a proposed construction, this Court must consider (1) whether the alleged correction is not subject to reasonable debate and (2) whether the prosecution history does not suggest a different interpretation of the claims.

See Ultimax Cement Mfg. Corp., 587 F.3d at 1353 (citing Novo Indus., LP, 350 F.3d at 1357). With respect to the disputed language, Plaintiffs and DePuy appear to focus on different aspects of the claim. Plaintiffs focus on the plain and ordinary meaning of the language of “upper bearing rim” as it appears in claim 7 and throughout the patent. DePuy focuses on the placement of the recesses, which reveals the typographical error of “bearing” intended to be “shell.” When reviewing this key disputed phrase “upper bearing rim” within the context of the full claim language, it is clear that the inventor was referring to the recesses located on the upper shell rim. The intrinsic evidence and Markman hearing discussions support this proposition as the ’097 Patent consistently describes the recesses on the “upper shell rim” and not the “upper bearing rim.” It is only in this claim, for the first time, that the recesses are described as being positioned on the “upper bearing rim” rather than the “upper shell rim” appears. Accordingly, this Court finds that there is no reasonable or logical debate regarding the correction from “bearing” to

“shell.” Furthermore, the prosecution history clearly supports that the inventors intended that the anti-rotation recesses be around the upper rim of the shell and not the bearing. (Pls. Op. Br., App. D at 3-6.) As it is within this Court’s power and discretion to correct minor errors, this Court concludes that the word “bearing” in claim 7 was a typographical error and will be corrected to read “shell.”

## CONCLUSION

For the reasons stated above, this Court orders that the disputed claims in the '243 Patent and the '097 Patent be construed as set forth in this Opinion. A summary of this Court's construction of the disputed claims is provided in the corresponding Order.

s/ Susan D. Wigenton, U.S.D.J.

cc: Magistrate Judge Arleo